

REMARKS

Applicant submits claim 12 to round out the scope of the claimed invention.

Applicant refers to Figs. 7 and 12, and their corresponding description in the specification—including page 13, lines 8-18—for exemplary embodiments of and support for the claimed invention. No new matter has been added. Claims 1-12 are now pending in the application.

Applicant acknowledges with appreciation the Examiner's finding that claim 9 contains allowable subject matter. Applicant submits that claim 1, from which claim 9 depends, is patentable over the reference cited against it, as demonstrated below. Accordingly, Applicant requests that the Examiner allow claim 9.

Claims 1-8 and 10-11 stand rejected under 35 U.S.C. § 102(e) as being unpatentable over U.S. Patent Application Publication No. 2004/0266354 to Hamada et al. Applicant respectfully traverses the rejection.

The Examiner cited and relied upon Fig. 12 and paragraph [0110] of Hamada et al. as alleged disclosure of the principal features of the claimed invention. In particular, the Examiner relied upon the illustration and description of elements 42 and 37 as alleged disclosure of the claimed channel estimation unit and predefined part features, respectively. Such portions of Hamada et al. only include, however, description of each of fingers 37a₁ to 37a₄ having a phase compensator (or “channel estimation unit”) 42 that averages voltages of I and Q components of a pilot signal over a prescribed number of slots and outputs channel estimation signals I_t, Q_t. Page 8, left column, lines 4-14 of Hamada et al.

Thus, such portions, as relied upon by the Examiner, do not include any disclosure of the claimed features of a channel estimating unit making channel estimation by using a pilot signal from which a predefined part of the pilot signal is removed, where the predefined part is defined for each target bit of the synchronization signal to be demodulated and is defined so as to include the target bit.

In other words, Hamada et al., as cited and relied upon by the Examiner, fail to disclose,

“[a] synchronization detecting apparatus making synchronization detection by using a pilot signal that comprises a plurality of bits and at least one bit of said plurality of bits is used as a synchronization signal, comprising:

a channel estimating unit making channel estimation by using the pilot signal from which a predefined part of the pilot signal is removed; and

a synchronization signal demodulating unit demodulating said at least one bit of the synchronization signal by using a result of the channel estimation, wherein

said predefined part is defined for each target bit of the synchronization signal to be demodulated and is defined so as to include the target bit; and

synchronization detection is made by using the demodulated synchronization signal,” as recited in claim 1.
(Emphasis added)

Accordingly, Applicant respectfully submits that claim 1, together with claims 2-8 and 10 dependent therefrom, is patentable over Hamada et al. for at least the foregoing reasons. Claims 11-12 incorporate features that correspond to those of claim 1 cited above, and are, therefore, patentable over Hamada et al. for at least the same reasons.

In view of the remarks set forth above, this application is in condition for allowance which action is respectfully requested. However, if for any reason the Examiner should consider this application not to be in condition for allowance, the Examiner is respectfully requested to telephone the undersigned attorney at the number listed below prior to issuing a further Action.

Any fee due with this paper may be charged to Deposit Account No. 50-1290.

Respectfully submitted,

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